AMENDMENTS TO THE CLAMS

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please ADD new claims 17-19. Please AMEND claims 6, 15, and 16 to read as follows.

1. (PREVIOUSLY PRESENTED) An optical circuit comprising:

a first optical element formed on a substrate, guiding light and having an optical coupling part;

a second optical element formed on the substrate and guiding light received from the optical coupling part of the first optical element; and

a third optical element formed on the substrate and guiding or protecting light radiated from the optical coupling part.

2. (PREVIOUSLY PRESENTED) The optical circuit according to Claim 1, wherein at least one optical element is a Mach-Zehnder type optical element.

3. (PREVIOUSLY PRESENTED) The optical circuit according to Claim 1, wherein at least one optical element is a Mach-Zehnder interferometer type optical modulator.

4. (PREVIOUSLY PRESENTED) The optical circuit according to Claim 1, wherein at least two optical elements are connected in tandem.

5. (PREVIOUSLY PRESENTED) The optical circuit according to Claim 1, wherein the substrate is made of ferroelectric material.

6. (CURENTLY AMENDED) The optical circuit according to Claim 1, wherein:

one of the first and second optical elements is a first Mach-Zehnder type optical modulating part for applying a clock signal voltage at a predetermined cycle to a first electrode for varying a refractive index of the ~~third~~ optical ~~element~~ coupling part; and

wherein the other of the first and second optical elements is a second Mach-Zehnder type optical modulating part connected in tandem with the first Mach-Zehnder type optical modulating part for applying a signal voltage modulated according to information to be transmitted, to a second electrode.

7. (PREVIOUSLY PRESENTED) The optical circuit according to Claim 1, wherein the substrate is made of lithium niobate (LiNbO3).

8. (PREVIOUSLY PRESENTED) The optical circuit according to Claim 1, wherein light from said first optical element is formed in a Mach-Zehnder interferometer structure to attenuate light intensity and vary an amount of attenuation.

9. (PREVIOUSLY PRESENTED) An optical circuit comprising:

a substrate having at least two optical elements;

a first optical waveguide formed on said substrate and connecting the optical elements to guide signal light outputted from an upstream optical element to a downstream optical element; and

a pair of second optical waveguides formed on the substrate and formed on both sides of the first optical waveguide to guide light radiated or leaking from the first optical waveguide.

10. (PREVIOUSLY PRESENTED) An optical circuit comprising:

a first optical waveguide formed on a substrate connecting optical elements to guide signal light outputted from one optical element to another; and

a second optical waveguide formed on the substrate to guide light radiated or leaking from the first optical waveguide.

11. (PREVIOUSLY PRESENTED) The optical circuit according to Claim 1, wherein the third optical element guides the light which is radiated or leaking from the optical coupling part to an outside of the substrate.

12. (PREVIOUSLY PRESENTED) The optical circuit according to Claim 1, wherein the third optical element extends to an end of an outside face of the substrate, to at least one of an upper and lower surface of the substrate, and releases the light which is radiated or leaking from the optical coupling part to an exterior at the surface to which the third optical element extends.

13. (PREVIOUSLY PRESENTED) The optical circuit according to Claim 12, wherein a mirror is provided on a surface of the substrate opposite the surface at which the third optical element releases the light which is radiated or leaking from the optical coupling part.

14. (PREVIOUSLY PRESENTED) The optical circuit according to Claim 12, wherein a diffraction grating is provided on a surface of the substrate opposite the surface at which the third optical element releases the light which is radiated or leaking from the optical coupling part.

15. (CURRENTLY AMENDED) An apparatus comprising:

a substrate;

an optical coupler formed on the substrate and guiding light from an optical component formed on the substrate to another optical component formed on the substrate; and

an optical element formed on the substrate guiding light which is radiated or leaking from the optical coupler to an outside of the substrate.

16. (CURRENTLY AMENDED) A method of transmitting light, comprising:

guiding light with an optical coupler from an optical element formed on a substrate to another optical element formed on a substrate; and

guiding light which is radiated or leaking from the optical coupler to an outside of the substrate.

17. (NEW) An optical circuit comprising:

a first optical element formed on a substrate, guiding light and having an optical coupling part;

a second optical element formed on the substrate and guiding light received from the optical coupling part of the first optical element; and

a third optical element formed on the substrate and guiding or protecting light which is emitted or leaking from the optical coupling part.

18. (NEW) An optical circuit comprising:

a substrate having at least two optical elements;

a first optical waveguide formed on said substrate and connecting the optical elements to guide signal light outputted from an upstream optical element to a downstream optical element;

and

a pair of second optical waveguides formed on the substrate and formed on both sides of the first optical waqveguide to guide light outputted from the first optical waveguide.

19. (NEW) An optical circuit comprising:

a first optical waveguide formed on a substrate connecting optical elements to guide signal light outputted from one optical element to another; and

a second optical waveguide formed on the substrate to guide light emitted from the first optical waveguide.